

## LISTING OF CLAIMS

Please amend claim 70, 71, 72, 73, and 74.

1.-69. (Cancelled)

70. (Currently Amended) A conveyor system, comprising:

a plurality of conveyor beds, each said conveyor bed having a conveying surface and at least one motorized roller propelling said conveying surface;

at least some of said conveyor beds each comprising

a plurality of motor controllers, at least one of said plurality of motor controllers adapted to control said at least one motorized roller;

~~at least one~~ a sensor, said sensor adapted to detect the presence of an article load on said conveyor bed adjacent to said sensor and to communicate to said ~~associated motor controllers~~ at least one motorized roller when the article load is detected by said sensor;

a conveyor bed controller in communication with said plurality of motor controllers, said conveyor bed controller adapted to send communications to said motor controllers for controlling said ~~associated motorized rollers~~ at least one motorized roller;

at least one of said conveyor beds comprising a routing component, said routing component operable for selectively directing articles in different directions from said routing component;

a master controller adapted to send and receive communications from said conveyor bed controllers for controlling said conveyor bed controllers, said motor controllers, and said routing components; and

a network that carries the communications between said master controller, said conveyor bed ~~controller~~ controllers, said motor controllers and said routing components;

wherein said master controller evaluates current operating state of said plurality of conveyor beds and said routing components;

wherein said master controller calculates a route for article loads ~~in~~ at said plurality of conveyor beds based upon rules using flow and position of article loads ~~in~~ at said plurality of conveyor beds and routing components;

wherein said master controller transmits a speed command based upon said route to said plurality of conveyor bed controllers over said network; and

wherein said conveyor bed controllers send said speed command to said ~~associated motor controllers~~ at least one motorized roller to operate said ~~associated~~ at least one motorized roller at a speed based on said calculated route.

71. (Currently Amended) The system of claim 70 wherein:

said master controller transmits a route direction command for article loads to said plurality of conveyor bed controllers over said network;

said plurality of conveyor bed controllers send said route direction command to said ~~associated motor controllers of said~~ at least one motorized rollers roller; and

said ~~associated~~ at least one motorized rollers roller control controls a direction of said conveying surface according to said calculated route.

72. (Currently Amended) The system of claim 71 wherein:

said master controller tracks article load information of said plurality of conveyors beds and calculates a routing table for ~~said~~ article loads in said plurality of routing components using article destination information, load priority and available routing directions;

said master controller transmits a routing table speed command to a plurality of routing component controllers over said network; and

said routing component controllers sending said routing table speed command setting to a routing component motor controller to operate routing component at the speed based on said calculated routing table.

73. (Currently Amended) The system of claim 72 wherein:

said master controller transmits a routing table direction command to said plurality of routing component controllers over said network; and

said routing component controllers ~~sends~~ send said routing table direction command to said associated routing component motor controllers to control the direction of said routing component ~~direction~~ according to said routing table.

74. (Currently Amended) The system of claim 73 wherein:

said sensors of said routing components identifies an article load destination information;

said master controller evaluates flow and position of said article loads in said plurality of conveyor beds and said routing components to select a routing component route from said routing table; and

said master controller controls the direction of said routing component according to said route.

75. (Previously Presented) The system of claim 74 wherein said master controller adjusts the speed and the direction of said conveyor beds associated with said routing component route.

76. (Previously Presented) The system of claim 75 wherein:

said master controller transmits a function command over said network to said plurality of bed controllers and said routing components;

said plurality of bed controllers and said routing components download said function command; and

said master controller dynamically controls the direction and the speed of said plurality of bed controllers and said routing components based upon said function command.

77. (Previously Presented) The system of claim 76 wherein said function command comprises a slug accumulation function program

78. (Previously Presented) The system of claim 76 wherein said function command comprises a singulation accumulation function program

79. (Previously Presented) The system of claim 76 wherein said function command comprises a reverse slug accumulation function program

80. (Previously Presented) The system of claim 76 further comprising:

a user interface with visualization coupling with said master controller;  
wherein said user interface provides a visual display of diagnostic information, flow information and status information in said plurality of conveyor beds and said routing components.

81. (Previously Presented) The system of claim 80 wherein said user interface controls the speed and the direction of said plurality of bed controllers and said routing components through said master controller.

82. (Previously Presented) The system of claim 81 wherein said user interface controls said master controller instantaneously.

83. (Previously Presented) The system of claim 81 wherein said user interface controls said master controller with a delay.

84.-97. (Cancelled)